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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/019,614 02/06/98 KOSKI A 460-007777-U

TM31/1221

CLARENCE A GREEN
PERMAN AND GREEN
425 POST ROAD
FAIRFIELD CT 06430

EXAMINER

GRIER, L

ART UNIT	PAPER NUMBER
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2644

13

DATE MAILED:

12/21/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Regards.

Laura A. Grier
(703) 306-4819

JH

Office Action Summary

Application No.

09/019,614

Applicant(s)

KOSKI ET AL.

Examiner

Laura A Grier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 1-4 and 10-11** are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (U. S. Patent No. 5881103).

Regarding **claim 1**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP. Further, Wong et al. teaches the audio parameters controlling processing in a digital signal processor, for it is inherent that only the parameters provided for the necessary function of the device will essential control the processing.

Regarding **claim 2**, Wong et al. further discloses radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP.

Regarding **claim 3**, Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP.

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Regarding **claim 4**, Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 10**, Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 11**, Wong et al. further discloses the DSP receiving audio parameters from the accessory device (figure 2 and column 3, 2nd paragraph).

2. **Claims 5-6 and 12-13** are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al.

Regarding **claim 5**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP. Further, Wong et al. teaches the audio parameters controlling processing in a digital signal processor, for it is inherent that only the parameters provided for the necessary function of the device will essential control the processing.

Regarding **claim 6**, Wong et al. discloses everything claimed as applied above (see claim 5). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last

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paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 12**, Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 13**, Wong et al. further discloses the DSP receiving audio parameters from the accessory device (figure 2 and column 3, 2nd paragraph).

3. **Claim 14-17, 23-24 and 27** are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al.

Regarding **claim 14**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP, in which the accessory memory (non-volatile memory) for storing parameters (figure 2-reference 220 and column 2, lines 60-64), which reads on a memory (writable mass storage) for storing being separate from the processor.

Regarding **claim 15**, Wong et al. discloses everything claimed as applied above (see claim 14). Wong et al. further discloses the DSP receiving audio parameters from the accessory device via the accessory interfaces (figure 2 and column 3, 2nd paragraph).

Regarding **claim 16**, Wong et al. discloses everything claimed as applied above (see claim 14). Wong et al. further discloses radio accessory interface-reference 115 via signal lines

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250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP.

Regarding **claim 17**, Wong et al. discloses everything claimed as applied above (see claim 14). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 23**, Wong et al. discloses everything claimed as applied above (see claim 14). Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 24**, Wong et al. discloses everything claimed as applied above (see claim 14). Wong et al. further discloses the DSP receiving audio parameters from the accessory memory of the accessory (non-volatile memory), which is indicative of writable mass storage (figure 2 and column 2, last paragraph).

Regarding **claim 27**, Wong et al. discloses everything claimed as applied above (see claim 14). Inherently, Wong et al. discloses the accessory memory (column 2, lines 60-64) being a non-volatile memory is indicative of FLASH memory, FLASH memory is a type of non-volatile memory in which data will not be erased without power.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 1030 and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 7-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Hallikainen et al. (U. S. Patent No. 5797102).

Regarding **claims 7 and 8**, Wong et al. discloses everything claimed as applied above (see claim 5). However, Wong et al. fails to specifically disclose a transmitter/receiver unit of a mobile station. The examiner maintains that disclosing a transmitter/receiver unit of a mobile station was well known in the art, as taught by Hallikainen et al.

Regarding the transmitter/receiver unit of a mobile station, in a similar field of endeavor, Hallikainen et al. further discloses the transmitter/receiver unit (RF unit) of a mobile station.

It would have been obvious to one of the ordinary skill in the art at the time the invention was to modify the invention of Wong et al. by providing a transmitter/receiver unit of a mobile

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station for the purpose of utilizing such electronic devices in handsfree communication environments.

Regarding **claim 9**, Wong et al. and Hallikaen et al. discloses everything claimed as applied above (see claim 8). Wong et al. discloses an accessory device with a microphone and speaker (figure 1-references 120 and 130).

6. **Claims 18-19 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Malvino et al. (Digital Principles and Applications).

Regarding **claim 18**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP, in which the accessory memory (non-volatile memory) for storing parameters (figure 2-reference 220 and column 2, lines 60-64), which reads on a memory (writable mass storage) for storing being separate from the processor, but fails to show the means for loading the audio parameters into the memory from a writable mass storage.

One skilled in the art would have expected that the data have to be written into the memory during the manufacturing process. It was also well known in the art on how to address the cell in the memory in order to store the data into the cell from a mass storage. Malvino taught such well-known technique. Whether the mass storage is a writable mass storage, especially a FLASH memory as specified in **claim 28** is determined by the engineer depending on whether

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the data will be changed (which is mostly possible since the new auxiliary device may be on the market), and whether the data should be kept even without the power.

It would have been obvious to one of ordinary skill in the art to utilize the write operation as taught in Malvino to load the data into the memory into memory of Wong et al. and to use a FLASH memory as the mass storage to store the parameter/data in order to be able to change the stored parameters/data when a new accessory device is introduced and secure the data stored in the FLASH memory even without the power.

Regarding **claim 19**, Wong discloses everything claimed as applied above (see claim 18). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

7. **Claims 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Malvino et al. (Digital Principles and Applications) and further in view of Hallikainen et al. (hereinafter referred to as "Wong").

Regarding **claims 20 and 21**, Wong et al. and Malvino et al. discloses everything claimed as applied above (see claim 18). However, Wong et al. and Malvino et al. fails to specifically disclose a transmitter/receiver unit of a mobile station. The examiner maintains that disclosing a transmitter/receiver unit of a mobile station was well known in the art, as taught by Hallikainen et al.

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Regarding the transmitter/receiver unit of a mobile station, in a similar field of endeavor, Hallikainen et al. further discloses the transmitter/receiver unit (RF unit) of a mobile station.

It would have been obvious to one of the ordinary skill in the art at the time the invention was to modify the invention of Wong by providing a transmitter/receiver unit of a mobile station for the purpose of utilizing such electronic devices in handsfree communication environments.

Regarding **claim 22**, Wong et al. and Malvino et al. discloses everything claimed as applied above (see claim 18). Wong et al. further discloses an accessory device with a microphone and speaker (figure 1-references 120 and 130).

Regarding **claim 25**, Wong et al. and Malvino et al. discloses everything claimed as applied above (see claim 18). Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 26**, Wong et al. and Malvino et al. discloses everything claimed as applied above (see claim 18). Wong et al. further discloses the DSP receiving audio parameters from the memory (non-volatile memory -reference 220) accessory device (figure 2 and column 3, 2nd paragraph).

Response to Arguments

8. Applicant's arguments with respect to claims 1-27 (particularly to claims 1, 5, 11, 13-14 and 18) have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6306 for regular communications and (703) 308-6306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG

December 14, 2000



FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2700